

**Written Remarks of Sonal Shah,
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**“Make It in America: What’s Next?” Second Hearing
PANEL FOUR: Innovation Today**

Congressman Hoyer and respected Members of Congress, thank you for the opportunity to speak to you today about how government can leverage and improve technology to create more opportunities for Americans. Specifically, I would like to offer my recommendations on how government can build a robust infrastructure and create a market to advance and support the use of data and technology to address our greatest problems.

It is an honor to talk about Make It in America. The best thing ever “made in America” *is* America. We live in a country that is built on and inspires ingenuity, creativity, and innovation, and we must harness our American spirit to collectively tackle our nation’s most pressing social and economic issues. As former Representative Barney Frank once reminded us, “Government is simply the name we give to things we choose to do together.”

We agree on America’s innovative potential. Now we must work together to achieve it.

I am here to talk about what many of you already know – Government has a critical role to play in driving innovation to solve problems and improve lives. Recent history testifies to the world-changing potential of government-funded research and innovation. Government funding produced the Internet, facilitated the Human Genome Project, powered the algorithm that led to Google, and gave rise to the field of nanotechnology. Billions of dollars per year from the National Institutes of Health support pharmaceutical developments that bring citizens life-saving medications. We have a lot to be proud of and hopeful for. The value of improving people’s lives is something we can all agree on, regardless of party.

In 2008, I had the privilege of serving on President Obama’s transition board and co-leading the team for Technology, Innovation, and Government Reform. As part of our work, we recommended the creation of first-ever Office of the Chief Technology Officer, which is now being led by Megan Smith. We worked with agencies to develop technology positions, including at the U.S. Department of Health and Human Services, where Todd Park served as first CTO, and at the Veteran’s Administration, where CTO Peter Levin led innovation. We worked with agencies like the U.S. Departments of Education and Labor and the Corporation for National and Community Service to create innovation offices and programs. Finally, we recommended a new office at the White House, called the Office of Social Innovation and Civic Participation, to ensure a focus on the role of innovation in domestic policy to solve our most intractable social problems. I had the privilege of being appointed to lead that Office for President Obama from 2009-2011.

I have had the privilege of serving at the highest levels of government and working at some of the most innovative technology companies. Today, I direct the Beeck Center for Social Impact and Innovation at Georgetown University. As diverse as these experiences may seem – public service, private sector, and academia – there is one inescapable observation that I must share. **The most effective agencies, the most profitable companies, and the most innovative universities run on data and technology.** Government must invest in and use technology and adopt dynamic policies that can respond to technological innovations in our fast-changing world.

Much can be done to improve America's global competitiveness, and I am deeply appreciative of the tremendous work that has been done to shape a legislative agenda that not only makes it easier for inventors to apply for patents, for veterans to receive training, and for our small businesses – the heartbeat of America – to have fair access to Federally funded programs, but also lays the groundwork for years of transformational progress to come.

So today, while I agree that we need to have better policies for leveraging technology for economic growth, I respectfully ask that you also focus on one of our greatest assets and vehicles for driving change: our government. We need to invest in technology for government so it can deliver on its promise.

Data is one of the most powerful tools at our fingertips. In the private sector, companies invest in data to improve products, understand consumer behavior, and trade faster. Similarly, government needs to invest in data to make more informed decisions about what works and what does not, to provide better and smarter services, and to better understand what citizens need. Whether we are debating energy policy or access to healthcare, national defense or math scores in underserved communities, in order for us to turn the corner on where-and-how we apply precious public resources, we need to know more. What can we expect from a policy, what will the outcomes be, and where will our investments have the most impact? The government can and must create the market for data to answer these questions.

I used to think that society's leaders could make smarter decisions by doing research or pulling numbers from reports, but the reality is that it is not that easy or simple. Most of these reports rely on data from government, and there is not nearly enough useable data. Big data needs to be made intelligible. Government needs a better way to collect and organize data into what computer scientists call a "data model" – or rather, a digital filing cabinet to help government leaders like yourselves, our industries, our schools, our hospitals, and our military reach the highest potential our country can offer. My experience suggests that if we neglect the "first mile" – specifically, the collection and organization of data in a usable framework – we will miss an opportunity to create the government of the future.

While the idea of investing in data to unleash innovation is not new to government, a lot more needs to be done. I want to highlight two examples of data streams that we are all familiar with. The first is the GPS system, the location-based data stream from satellites that has spawned many industries, businesses, and applications. Google maps and countless other navigation systems that we access from our smartphones and our cars are powered by this government data. The second data stream comes from our weather satellites. This data helps us predict weather information – major storms, weather patterns – and allows industries to provide local, national, and international weather forecasts. How many industries have been created from these two data systems? More importantly, think how many lives this data has saved and improved on a daily basis. Imagine the exponential impact we can achieve by driving more such innovation.

Data is not just for industries; it drives public knowledge and gives citizens control over their own information. One of my favorite government examples is the Blue Button program from the Department of Veterans Affairs. Blue Button allows millions of veterans to retrieve their personal health information in a secure, private, and convenient way. Rather than relying on doctors, hospitals, or the medical system to transfer their data – each veteran now has access to his or her personal data through a portable health record to make smarter decisions about their health.

What all these programs have in common, whether public or private, is that they have created standards and points-of-access that are easy, cheap, reliable, and safe. We need more of this type of data, and government has the potential to create the market for that data. Data can help government make smarter decisions; ones that are driven less by guesswork and ideology, and more by facts. The Obama Administration has done much to open

data and open the conversation, but we can and need to do MUCH more. We need to invest in the government of the future. One that makes data more open, more usable, and, yes, more secure for citizens.

We are taking steps toward the future. To achieve this future and more, we need to make smarter investments in data systems. First, we need to make data more readily available. Second, we need to create more open standards. And, third we need to create a more open architecture. These investments will spark the next wave of innovation and spur economic growth.

Data is the fuel of the new economy. It is where the government has a competitive edge. In its rawest form, it is unbiased. It exposes and removes inequality. It belongs to all of us. Perhaps best of all, we can afford it. More importantly, we *cannot* afford for government to *not* invest in it.

Thomas Jefferson once noted that “lighting the candle of another” does not diminish one’s own. Data is our candle.

I urge you to help government continue to kindle this flame by investing in data and technology to propel us toward an even brighter future. If we build the requisite infrastructure to collect and match the data we need with the outcomes we aspire to achieve, our investments will not only innovate government, but will lay a foundation for infinite and untold possibilities for generations to come.

I leave you with this closing thought: America has a fearless history of leading through innovation. Let’s further this tradition by using technology and data, as the Jesuits of Georgetown would say, to “go forth and set the world on fire.”

Thank you.